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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/040,567 | 01/07/2002 | Yong-Jun Cho | SO-414 | 2301 |

7590 12/18/2002

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EXAMINER

MARSH, STEVEN M

ART UNIT

PAPER NUMBER

3632

DATE MAILED: 12/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|----------------------------|------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/040,567 | CHO ET AL. |
| | Examiner Steven M Marsh | Art Unit 3632 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 07 January 2002.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-7 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-7 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 07 January 2002 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

| | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

This is the first office action for U.S. Application 10/040,567 for a Semi Sandwich Panel filed by Yong-Jun Cho on January 7, 2002.

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "1" and "12" have both been used to designate the surface finishing material. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

The abstract of the disclosure is objected to because in line 2 of page 1 of the abstract, the word "cores" should be replaced with the word - - core - -. Correction is required. See MPEP § 608.01(b).

The use of the trademark NOMEK has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 and 5 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 recites the limitation "both surface finishing materials" in line 2. There is insufficient antecedent basis for this limitation in the claim. Claim 5 reads, "and is partially formed across the edge portion of the same". It is unclear what Applicant means by that and it has been examined to the best extent possible.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 5, and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 4,800,643 to Higgins. Higgins discloses a semi sandwich panel with a honeycomb core material (40) inserted into a portion which needs strength and intensity between surface finishing materials (36 and 38) made of a carbon fiber. There is an insert (10) in the core material between the surface finishing materials. The honeycomb

core is formed in an edge of the inner surface of surface finishing material and could be adapted to an interior finishing material of a train or a ship.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Higgins in view of 5,543,198 to Wilson. Higgins does not specifically disclose a NOMEX honeycomb core. Wilson discloses a panel with a NOMEX honeycomb core (12) between two surface finishing materials (11 and 14). It would have been obvious to one of ordinary skill in the art at the time of the present invention to use a NOMEX honeycomb core for the honeycomb core taught by Higgins, as taught by Wilson.

Claims 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Higgins. Higgins does not specifically disclose an insert nut, however, it does disclose an insert fastener. Nuts are a known form of fastener, and it would have been obvious to one of ordinary skill in the art at the time of the present invention to have used a nut as the fastener taught by Higgins because nuts are a well-known form of fastener in the art. It is also known to provide windows in panels and therefore the core would obviously be formed around the circumference of the window frame.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 5,547,737 to Evans et al.

U.S. Patent 5,460,864 to Heitkamp

U.S. Patent 5,888,612 to Needham et al.

U.S. Patent 5,460,865 to Tsotsis

U.S. Patent 5,106,668 to Turner et al.

U.S. Patent 4,803,108 to Leuchten et al.

U.S. Patent 4,557,961 to Gorges

The above patents all disclose various types of sandwich panels.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Marsh whose telephone number is (703) 305-0098. The examiner can normally be reached on Monday-Friday from 8:00AM to 4:30 PM. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-2168. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3597.

SM
Steven M. Marsh

December 13, 2002

Anita King
ANITA KING
PRIMARY EXAMINER